

1 **ABSTRACT**

2 Methods and apparati are provided for use in cryptographically processing
3 information based on elliptic and other like curves. The methods and apparati
4 allow pairings, such as, for example, Weil pairings, Tate Pairings, Squared Weil
5 pairings, Squared Tate pairings, and/or other like pairings to be determined based
6 on algorithms that utilize a parabola. The methods and apparati represent an
7 improvement over conventional algorithms since they tend to be more
8 computationally efficient.